

Amendments to the Drawings

Attached are new Figs. 14A and 14B. Fig. 14A illustrates in block diagram form an aroma delivery apparatus including a barcode reader and Fig. 14B illustrates in block diagram form an aroma delivery apparatus provided in a vehicle. Support for Figs. 14A and 14B can be found in paragraphs 94 and 98 of corresponding U.S. Patent Application Publication 2006/0261179 A1. No new matter is involved.

Remarks

In the Office Action dated March 27, 2009, claims 22, 23, 29, 35, 43, 54-56, 63-67 were rejected under Section 102(b) as being anticipated by U.S. Patent No. 6,684,879 to Coffee et al.; claims 26, 27, 37, 60 and 62 were rejected under Section 103 based on the '879 patent; claims 28, 36, 51-53, 64 and 65 were rejected under Section 103 based on the '879 patent in view of U.S. Patent No. 5,655,517 to Coffee; claim 57 was rejected under Section 103 based on the '879 patent in view of U.S. Patent No. 4,095,596 to Grayson; and claims 58, 59 and 61 were rejected under Section 103 based on the '879 patent in view of U.S. Patent No. 6,602,475 to Chiao. Elected claims 24, 25, 46, 49 and 50 were not addressed in the Office Action.

The drawings were objected to as being informal because, it was alleged, that the subject matter of claims 58, 60 and 61 is not shown in the drawings. Attached are new Figs. 14A and 14B. Fig. 14A illustrates in block diagram form an aroma delivery apparatus including a barcode reader (claim 58) and Fig. 14B illustrates in block diagram form an aroma delivery apparatus provided in a vehicle (claim 60). Support for Figs. 14A and 14B can be found in paragraphs 94 and 98 of corresponding U.S. Patent Application Publication 2006/0261179 A1. No new matter is involved. It is believed that originally filed Fig. 16 illustrates a radio, as recited in claim 61. Accordingly, withdrawal of the drawing objection is respectfully requested.

Claim 22 has been amended to recite that the outlet is electrically conductive. Support for this amendment can be found in paragraph 32 of corresponding U.S. Patent Application Publication 2006/0261179 A1. No new matter is involved.

Amended independent claim 22 in the present application recites:

An aroma dispensing device, comprising:
means for supplying liquid to an electrically conductive outlet;
an electrical discharge means;

means for coupling said outlet to a first potential and for coupling said electrical discharge means to a second, different, potential for causing an electric field to be generated at said outlet to produce a dispersion of aroma-providing droplets from liquid issuing from the outlet and for producing at said electrical discharge means ions to at least partially electrically discharge the dispersion, wherein said outlet is coupled to said first potential via a resistance.

Remaining independent claim 25 recites:

(Original) An aroma dispensing device, comprising:
means for supplying liquid to an outlet;
an electrical discharge means;

means for coupling said outlet to a first potential representing electrical earth and said electrical discharge means to a second, different potential for causing an electric field to be generated at said outlet to generate a dispersion of aroma-providing droplets using liquid issuing from the outlet and for producing at said electrical discharge means ions to at least partially electrically discharge the dispersion, wherein said outlet is coupled to said first potential via a resistance.

It is noted that U.S. Patent No. 6,684,879 to Coffee et al. teaches that pipe 10 in Figs. 2 and 4 is “made of an insulating material which does not retain charge for any significant length of time,” see column 5, lines 12-15. In the Fig. 5 embodiment of the ‘879 patent, an electrically conductive capillary tube pipe is provided, see column 6, lines 66 and 67. The capillary tube pipe defines a first electrode while a second electrode 12 is provided on an inner wall of a chamber, see column 6, line 67 through column 7, line 3. There is no teaching of the tube or the second electrode 12 being connected to a first potential via a resistor. In the Fig. 6 embodiment of the ‘879 patent, a counter electrode 12’ is mounted to an inner wall of a chamber and is coupled via a resistor to the negative terminal of a voltage source, see column 7, lines 45-53. A further electrode 120 is mounted so as to be near the counter electrode 12’ and is coupled to the high voltage output of a high voltage generator, see column 7, lines 54-62. A first electrode 11 is provided in the liquid supply pipe and is coupled to the negative terminal of the battery, see column 5, lines 19-21. In this embodiment, ions are generated from the electrode 120 and migrate to the counter electrode 12’, see column 7, lines 63-67. This is done so as to at least partially discharge any charged comminuted matter issuing from the nozzle 10a which is inadvertently attracted toward the counter electrode 12’ so as to reduce the likelihood that the charged matter will deposit onto the counter electrode 12’, see column 8, lines 2-11.

In the Fig. 6 embodiment of the ‘879 patent, it is believed that the voltage applied to electrode 120 must be limited because if the voltage is too high, it is believed that ion flux from electrode 120 to the outlet nozzle 10a will be too excessive, which may cause disruption of the comminution of the liquid. This is contrast to the present invention, where a resistor is provided

between an electrically conducting outlet of a supplying means and a first potential. As discussed in paragraph 39 of corresponding U.S. Patent Application Publication No. 2006/0261179 A1, providing a resistor between an outlet of a supplying means, such as capillary tube 7 in Fig. 1, and a first potential, such as electrical earth E, the discharge voltage and consequently the ion flux can be increased so as “to generate more ions which helps to ensure that all of the electrically charged dispersion is electrically discharged” without disrupting the comminution of the liquid. This aspect of the present invention is set out in independent claims 22 and 25 of the present invention and is clearly not taught by U.S. Patent No. 6,684,879 to Coffee et al. Nor is this aspect of the present invention taught or suggested by U.S. Patent No. 5,655,517 to Coffee, U.S. Patent No. 4,095,596 to Grayson or U.S. Patent No. 6,602,475 to Chiao.

Accordingly, for the reasons set out above, U.S. Patent No. 6,684,879 to Coffee et al., U.S. Patent No. 5,655,517 to Coffee, U.S. Patent No. 4,095,596 to Grayson and U.S. Patent No. 6,602,475 to Chiao, whether taken singly or in combination, do not disclose, teach or suggest the subject matter set out in claims 22-29, 35-37, 43, 46 and 49-67.

In view of the above remarks, applicants submit that claims 22-29, 35-37, 43, 46 and 49-67 define patentably over the prior art. Early notification of allowable subject matter is respectfully requested.

Respectfully submitted,
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